STELLA MARIS COLLEGE（AUTONOMOUS）CHENNAI－ 600086
（For candidates admitted from the academic year 2019－2020 and thereafter）
SUBJECT CODE：19EC／AC／EM45

## B．A．DEGREE EXAMINATION，MAY 2021 <br> BRANCH IV－ECONOMICS END SEMESTER EXAMINATION

COURSE：ALLIED CORE
MAX．MARKS： 50 PAPER：INTRODUCTORY ECONOMETRICS TIME： $1 ½$ HOURS
SECTION - A

## ANSWER ANY FIVE OUT OF SIX QUESTIONS．（50 WORDS EACH）

1．Define econometrics．
2．What is the property of a mathematical model？
3．What are the assumptions of the stochastic disturbance term？
4．Specify and explain the SRF．
5．What is the significance of $X$ being fixed in repeated sampling？
6．What is simultaneous equation bias？

## SECTION－B

ANSWER ANY TWO OUT OF THREE QUESTIONS IN 400 WORDS（ $\mathbf{2} \mathbf{x} 10=20$ ）
7．Derive the OLS estimators for a 2 －varaible model．List the properties．
8．Discuss the assumptions underlying the Classical Linear Regression Model．
9．Explain the use of reciprocal model in estimating Phillips curve．
SECTION - C

## ANSWER ANY ONE OUT OF TWO QUESTIONS IN 1000 WORDS <br> $(1 \times 20=20)$

10．Prove that the OLS estimators of a two－variable linear regression model is BLUE．
11．Calculate a relevant equation for the following sample data：
$\begin{array}{llllll}\text { Price of A：} 50 & 70 & 78 & 89 & 110 & 120\end{array}$
$\begin{array}{llllll}\text { Quantity A：} 164 & 159 & 140 & 100 & 70 & 65\end{array}$
Estimate the average price elasticity of demand． Is the model statistically significant？

